

The Result of the Serum-treatment of Diphtheria as Exemplified in Ninety-six Cases Seen in Private Practice.—AYLWARD (*British Medical Journal*, January 15, 1898) reports the comparative results of the serum-treatment and other methods in a series of cases in one outbreak of this disease which was mild in type, though some of the cases were severe; one-fourth of the cases were treated without the serum, the remaining three-fourths were treated by it.

The effects of the serum not only upon the false membrane, but upon the patients generally, were, as a rule, astonishing. When I began its use some seventeen months ago I had a most healthy scepticism as to its value, and was quite prepared to find it little better than many other much-belauded modes of treatment. Experience in its use made me a grateful enthusiast.

Its effect upon the false membrane seems to depend mainly upon the length of time the membrane has been formed. If recent, it seems to disintegrate and almost dissolve away. If it has been in existence some days, the absence of spread will be the main indication of the effects of the serum.

The mortality in twenty-four non-serum cases was equal to 12.5 per cent., and in seventy-two serum cases was equal to 4.16 per cent.

The cases that died under the serum-treatment were those that had had no medical aid until the disease was fairly in an advanced stage.

It is most important that injection be performed at the earliest possible moment after a definite diagnosis has been made, and it is especially in connection with this point that I believe better results will be obtained in private than in hospital practice. Even in the best organized ambulance service some hours must usually elapse after the diagnosis has been made at home before treatment can be commenced at hospital, and under unfavorable circumstances the time might be longer. This delay in a disease like diphtheria may, in some cases, prove to be the death-warrant. This view is strongly supported by the fact that all but one of the fatal cases had been neglected for several days, and this solitary case was one of the earlier cases in which, to my lasting regret, I failed to use the serum-treatment. The same truth is further exemplified by the fact that only one death occurred in the last fifty-eight cases, mainly, I think, because the people began to realize the importance of seeking advice early. Moreover, in by far the majority of cases, the disease begins in the tonsils, and spreads from these glands to more dangerous regions. Early injection will in most cases prevent this spread. A very considerable proportion of the 51 per cent. in whom the false membrane did not spread beyond the tonsils were those who were living in the same rooms or houses with the fatal or more severe cases, and were, consequently, seen early, often before the false membrane appeared at all.

The small percentage of laryngeal cases may be similarly accounted for. One word in reference to immunizing injections. It is strongly recommended by some to use them for all members of a household where diphtheria appears. I have never done so, nor have I injected a suspected case of diphtheria before false membrane has appeared. My reasons for not doing so are: 1. That in every case of this series in which serum was used in full doses on the first appearance of false membrane, the arrest of the disease was prompt and efficient. 2. Considerable pain is often caused by injec-

tion. 3. Although the risk is probably very small, it cannot be said to be absolutely *nil*. 4. It is open to question whether it is prophylactic at all.

Air Infection.—In tracing the sources of error in aseptic methods of operating, FLÜGGE (*Cent. f. Chir.*, 1897, No. 39) has reported some very interesting results which he has obtained from the experimental study of the infection which results from bacteria carried about as dust particles in currents of air in operating-rooms, or in minute particles of moisture that also float for a length of time in the air. These dry particles and drops of moisture float in the air of a room for four or five hours, and are carried by the currents in the room long distances. It was determined that such drops could be discharged into the air by coughing and sneezing, from the frequently infected mucous membranes of the nose and throat. Even talking loudly would infect plates at a considerable distance from the speaker.

Although the author does not intend to imply that this is the most frequent source of infection in cases of aseptic wound treatment, he does claim that such infection may take place, and that it is more plausible as a theory to believe that such infection occurs than to blame all such infection on a poor antiseptics of the skin in the field of operation. The pyogenic micro-organisms are found in the normal secretions of the nose and mouth of healthy individuals, and where carious teeth are present the danger of infection is certainly greatly increased.

The infection through the air may, therefore, be a ready explanation of many cases of infection hitherto unaccounted for. It can be occasioned either by the surgeon, his assistants, the nurses, the onlookers, or the patient himself, and a moderate distance of these persons from the operator does not in any wise preclude them as the source from which the infection may arise.

The coughing of the patient or stertorous breathing may be a source of infection in itself. Thus, although this is not a frequent source of infection, it is nevertheless a positive source which will account for some of the failures which occasionally occur in aseptic operations.

The Operative Treatment of Cleft Palate.—In a clinical lecture upon this subject, OWEN (*The Lancet*, January 29, 1898) gives the following practical advice :

When to operate : If the cleft is confined to the soft palate and the infant is in a satisfactory state of health, the operation may be done within a few months after birth. But if the hard palate is involved, he prefers to wait another year to avoid the danger of shock from the operation. He prefers to operate in all cases upon the entire cleft at once, as it is essential to the successful performance of the operation to detach in a measure all parts of the periosteum.

The child should never be operated upon till the general health and conditions are good or failure is courted. Carious teeth, enlarged tonsils, and adenoids should be removed before operation for the cleft is thought of. If a choice is possible, the operation should be done in mild, fine weather, so that the child can be taken out of doors soon.

The best position is on the back with the head hanging over the end of the